In the claims:

1. In a system having a bi-directional auxiliary channel arranged to transfer information between a video source and a video display and vice versa and a unidirectional main link arranged to carry a number multimedia data packets from the video source to the video display, a method of establishing a stable main link, comprising:

prior to starting transmission of multimedia data packet streams from a video source to the video display over the main channel,

using a link training session carried out over the auxiliary channel to establish the stable main link.

2. A method as recited in claim 1, further comprising

sending a pre-defined training pattern by a main link transmitter;

determining whether or not the video display can achieve a solid bit/character lock based upon the training pattern, wherein substantially all link training related handshaking between the video source and the video display is carried on the auxiliary channel.

3. A method as recited in claim 2 wherein if the video display does not achieve the solid bit/character lock, the video display informs the video source via the auxiliary channel.

4. A method as recited in claim 3, further comprising:

reducing the link rate by the video source;

repeating the training session until the solid bit/character lock is achieved; and

sending a fault message based upon the failure to achieve the solid bit/character lock.

5. A method as recited in claim 1, wherein the training pattern includes a number of training phases wherein a phase 1 represents a shortest run length and wherein a phase 2 are used by the receiver to optimize an equalize and wherein in a phase 3, both a bit lock and a character lock are achieved as long as the link quality is acceptable.

6. A method as recited in claim 1, wherein the training session is about 10 ms in duration and wherein approximately 10^7 bits of data are transmitted.

7. In a video system having a video source and a video display, a packet based video monitor trainer, comprising:

a bi-directional auxiliary channel arranged to transfer information between the video source and the video display device and vice versa;

a unidirectional main link arranged to carry a number multimedia data packets from the multimedia source device to the multimedia sink device;

a main link receiver unit at the video display and a main link transmitter unit at the video source each coupled to the main link;

an auxiliary channel slave unit coupled to the auxiliary channel wherein both the main link receiver unit and the auxiliary channel slave unit are each in an electrically idle state in a monitor standby mode and wherein when a hot plug event has been detected, then the system moves to a display state at which time the

auxiliary channel slave unit is turned on and the main link transmitter unit responds to a receiver link capability read command; and

a training pattern unit arranged to generate a training pattern used by the transmitter in a training phase to adjust an equalizer which is updated based upon a result for each training phase.

8. A trainer as recited in claim 7 wherein when the training fails, the another training session is commenced.

9. A trainer as recited in claim 8, wherein when the training session passes, then the display is normally operating.

10. A trainer as recited in claim 7, wherein when it is determined that there is no activity on the auxiliary channel for a predetermined period of time, then the auxiliary channel slave port is set to the standby state.

11. In a system having a bi-directional auxiliary channel arranged to transfer information between a video source and a video display and vice versa and a unidirectional main link arranged to carry a number multimedia data packets from the video source to the video display, computer program product for establishing a stable main link, comprising:

prior to starting transmission of multimedia data packet streams from a video source to the video display over the main channel,

computer code for using a link training session carried out over the auxiliary channel to establish the stable main link.

12. Computer program product as recited in claim 11, further comprising

computer code for sending a pre-defined training pattern by a main link transmitter; and

computer code for determining whether or not the video display can achieve a solid bit/character lock based upon the training pattern, wherein substantially all link training related handshaking between the video source and the video display is carried on the auxiliary channel.

13. Computer program product as recited in claim 12 wherein if the video display does not achieve the solid bit/character lock,

computer code for informing the video source via the auxiliary channel.

14. Computer program product as recited in claim 13, further comprising:

computer code for reducing the link rate by the video source;

computer code for repeating the training session until the solid bit/character lock is achieved; and

computer code for sending a fault message based upon the failure to achieve the solid bit/character lock.

15. Computer program product as recited in claim 11, wherein the training pattern includes a number of training phases wherein a phase 1 represents a shortest run length and wherein a phase 2 are used by the receiver to optimize an equalize and wherein in a phase 3, both a bit lock and a character lock are achieved as long as the link quality is acceptable.

16. Computer program product as recited in claim 11, wherein the training session is about 10 ms in duration and wherein approximately 10^7 bits of data are transmitted.